What is claimed is:

1. A method of preparing a solution containing biological material, comprising
   a) adding a metal oxide to biological material to obtain a solution comprising a mixture of the metal oxide and the biological material; and
   b) separating the metal oxide from the mixture to form a resulting solution,
   wherein pathogenic prion proteins possibly contaminating the biological material are substantially reduced in the resulting solution.

2. A method of preparing a solution containing biological material, comprising
   a) adding a metal oxide to biological material to obtain a solution comprising a mixture of the metal oxide and the biological material;
   b) separating the metal oxide from the mixture to form a resulting solution; and
   c) evaluating the resulting solution for the presence or amount of pathogenic prion protein,
   wherein pathogenic prion proteins possibly contaminating the biological material are substantially reduced in the resulting solution.

3. The method of claim 2, wherein the biological material is selected from the group consisting of blood-derived products, tissue-derived products, and recombinantly produced products.

4. The method of claim 2, wherein the biological material is a blood-derived product.

5. The method of claim 4, wherein the blood-derived product is of human origin.

6. The method of claim 4, wherein the blood-derived product is selected from the group consisting of immunoglobulins, blood coagulation factors, plasmin, plasminogen, α-1 proteinase inhibitor, and albumin.

7. The method of claim 2, wherein the metal oxide is selected from the group consisting of fumed silica and fumed alumina.

8. The method of claim 2, wherein the fumed metal oxide is fumed silica.

9. The method of claim 8, wherein the fumed silica is characterized by a specific surface area of from about 130 m^2/g to about 380 m^2/g.

10. The method of claim 8, wherein the fumed silica is characterized by a specific surface area of from about 150 m^2/g to about 300 m^2/g.

11. The method of claim 8, wherein the fumed silica is characterized by a specific surface area of about 200 m^2/g.

12. The method of claim 2, wherein separating the metal oxide from the mixture comprises filtration.

13. The method of claim 12, wherein the filtration comprises passing the mixture through a filtration system which retains particles larger than from about 0.1 μm to about 5 μm.

14. The method of claim 12, wherein the filtration comprises passing the mixture through a filtration system which retains particles larger than about 0.8 μm.

15. The method of claim 2, wherein evaluating the resulting solution for the presence or amount of pathogenic prion protein comprises evaluating a sample for infectivity using an assay selected from the group consisting of an animal bioassay or an immunoassay for the pathogenic prion protein.

16. The method of claim 2, wherein evaluating the resulting solution for the presence or amount of pathogenic prion protein comprises evaluating a sample for the presence of

pathogenic prion protein using an immunoassay.

17. The method of claim 16, wherein the immunoassay is selected from the group consisting of Western blots and ELISA assays.

18. The method of claim 16, wherein the immunoassay is a Western blot.

19. The method of claim 2, wherein the metal oxide is aluminum hydroxide.

20. The method of claim 19, wherein the aluminum hydroxide, as a gel comprising about 2% by weight Al_2O_3, is present at a concentration from about 1% to about 10% by volume.

21. The method of claim 19, wherein the aluminum hydroxide, as a gel comprising about 2% by weight Al_2O_3, is present at a concentration from about 1% to about 5% by volume.

22. The method of claim 19, wherein the aluminum hydroxide, as a gel comprising about 2% by weight Al_2O_3, is present at a concentration of about 3% by volume.

23. A method of preparing a solution containing biological material, comprising
    a) adding fumed silica characterized by a specific surface area of from about 150 m^2/g to about 300 m^2/g to biological material to obtain a solution comprising a mixture of fumed silica and the biological material;
    b) separating the fumed silica from the mixture to form a resulting solution by passing the mixture through a filtration system comprising a filter which retains at least a substantial portion of particles of the fumed silica; and
    c) evaluating the resulting solution for the presence or amount of pathogenic prion protein using an immunoassay,
    wherein pathogenic prion proteins possibly contaminating the biological material

are substantially reduced in the resulting solution.

24. The method of claim 23, wherein the fumed silica is characterized by a specific surface area of about 200 m^2/g, a tap density of about 50 g/l, and an average aggregate particle length of from about 0.2 μm to about 0.3 μm.

25. The method of claim 23, wherein the fumed silica is added in an amount from about 0.1% to about 1.0% (weight/weight) of the solution comprising a mixture of fumed silica and the biological material.

26. The method of claim 23, wherein the fumed silica is added in an amount from about 0.2% to about 0.8% (weight/weight) of the solution comprising a mixture of fumed silica and the biological material.

27. The method of claim 23, wherein the fumed silica is added in an amount of at least about 0.25% (weight/weight) of the solution comprising a mixture of fumed silica and the biological material.

28. The method of claim 23, wherein the fumed silica is added in an amount of at least about 0.5% (weight/weight) of the solution comprising a mixture of fumed silica and the biological material.

29. A method of preparing a solution containing biological material, comprising
    a) adding silicon dioxide particles to biological material to obtain a solution comprising a mixture of silicon dioxide particles and the biological material;
    b) separating the silicon dioxide particles from the mixture to form a resulting solution; and
    c) evaluating the resulting solution for the presence or amount of pathogenic prion protein,

    wherein pathogenic prion proteins possibly contaminating the biological material

are substantially reduced in the resulting solution.

30. The method of claim 29, wherein separating the silicon dioxide particles from the mixture comprises centrifugation or filtration.

31. The method of claim 29, wherein separating the silicon dioxide particles from the mixture comprises centrifugation.

32. A method of separating prions from a sample, comprising
   a) contacting a sample in a flowable liquid state with a solid substrate comprising a metal oxide;
   b) allowing the sample to remain in contact with the substrate for a time such that prions in the sample bind to the substrate; and
   c) separating the sample from the substrate.

33. The method of claim 32, wherein the metal oxide is silicon dioxide or aluminum hydroxide.

34. The method of claim 32, wherein the metal oxide is fumed silica.

35. A method of separating prion proteins from a sample and concentrating them for further analysis, the method comprising,
   a) contacting the sample with a particulate metal oxide;
   b) separating the particulate metal oxide from the sample;
   c) subjecting prion proteins associated with the particulate metal oxide to further analysis.

36. The method of claim 35, wherein the further analysis of prion proteins comprises at least one analytical technique selected from the group consisting of immunoassay, animal bioassay, spectroscopic analysis, and chromatographic analysis.